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(21) Item 13

WONDER DISTRICT

The Wonder district is on the west slope of a southern spur of the Alpine range, sometimes called the Augusta Mountains, in west Churchill County. It is 55 miles by road east of the town of Fallon, the nearest railroad point; 40 of the 55 miles are over the paved Lincoln Highway and the remaining distance is over fair desert road with an easy grade from the highway to the camp, the rise being approximately 2,000 feet in 15 miles. The elevation of Wonder is 5,500 feet.

The first location in the Wonder District was made in April 1906 by T. J. Stroud on the Jackpot group of claims, and the Nevada Wonder mine was located shortly afterward by Murray Scott, William Mays, and others. The discovery of rich silver-gold ore started a stampede from Fairview that began in May in the same year, and in a few weeks over 1,000 locations were made. The discovery attracted considerable attention, and it was not long before a camp of several thousand people was established. In the first few years of the camp's history, a number of companies were organized, but the bulk of the metal yield was derived from the Nevada Wonder mine, incorporated in Delaware on September 19, 1906. Later this mine was taken over by a group of eastern capitalists, who began a systematic development campaign and in 1913 constructed a 200-ton cyanide mill at the mine. Electric power was brought in from Bishop, Calif., and at the time this transmission line had the distinction of being the longest in the world. The Nevada Wonder Mining Co. controlled, by stock ownership, the claims of the Wonder Extension, reorganized North Star, and Hidden Treasure mining companies, totaling 401 acres, 328 of which were patented. In 1910 water was brought to the camp by a gravity pipe line from Horse Creek, a distance of 10 miles. The company ceased operations in December 1919, after a very profitable history. The total amount of dividends paid was $1,549,002. In 1924 the mine equipment was dismantled and most of it sold. In 1935 the mine and the equipment remaining was purchased by L. F. Curtis of Reno, Nev. In recent years, mining in the district has been by lessees, largely at the Nevada Wonder mine.

The production of the district from 1907 to 1937, inclusive, was $5,952,764, as shown in table 4.

Nevada Wonder Mine

The Nevada Wonder mine comprises five patented mining claims owned by L. F. Curtis, of Reno, Nev. Development consists of a main three-compartment vertical shaft 1,342 feet deep and an auxiliary shaft 2,000 feet distant sunk to a depth of 800 feet, from which various subshafts and winzes attain a maximum depth of 2,000 feet from the surface. Total underground workings comprise about 8 miles. The lower workings are caved and inaccessible.

Equipment on the property includes a 25-horsepower single-drum gasoline hoist, Rix portable compressor, ore bins, wood head frame, blacksmith shop, and mining tools. In the early part of 1939 several sets of lessees were employed in the upper levels of the mine, and the ore was trucked to the custom milling plant at Westgate for treatment. In the first 6 months of 1938 lessees produced 1,347 tons of ore having a gross smelter value of $43,040.39 or an average of $31.95 per ton.

7381

TABLE 4.- Gold, silver, copper, and lead production from Wonder district, Churchill County, Nevada, 1907-37, in terms of recovered metal
(Compiled by Charles White Merrill, Mineral Production and Economics Division, Bureau of Mines)

Year	Lode					
	No. of mines	Ore, Short tons	Gold		Silver	
			Fine ounces	Value	Fine ounces	Value
1907.....	3	133	356.38	$7,367	10,993	$7,255
1908.....	6	408	362.13	7,486	79,187	41,969
1909-10..	-	-	-	-	-	-
1911.....	1	9,797	2,476.00	51,183	171,900	91,107
1912.....	1	28,376	7,589.87	156,897	474,316	291,704
1913.....	1	41,870	9,534.00	197,085	699,163	422,294
1914.....	4	50,121	9,715.58	200,839	914,547	505,744
1915.....	2	58,399	9,790.88	202,395	1,175,953	596,208
1916.....	3	58,142	8,955.89	185,135	1,023,288	673,323
1917.....	2	55,804	7,512.74	155,302	816,905	673,130
1918.....	5	49,741	4,883.41	100,949	603,528	603,528
1919.....	5	40,604	5,622.71	116,232	467,283	523,357
1920.....	4	1,218	517.57	10,699	14,505	15,810
1921.....	1	2	1.63	34	2	2
1922.....	2	24	14.89	308	1,755	1,755
1923.....	-	-	-	-	-	-
1924.....	1	1	.38	8	86	58
1925.....	-	-	-	-	-	-
1926.....	1	100	102.67	2,122	902	563
1927-30..	-	-	-	-	-	-
1931.....	3	416	245.20	5,069	13,377	3,879
1932.....	1	200	13.80	285	214	60
1933.....	-	-	-	-	-	-
1934.....	4	1,697	1,173.76	41,023	2,619	1,693
1935.....	2	233	42.76	1,497	14,648	10,528
1936.....	3	364	133.86	4,685	14,009	10,850
1937.....	3	705	294.00	10,290	24,970	19,315
Total.	-	398,355	69,340.11	1,456,890	6,524,150	4,494,132

TABLE 4.- Gold, silver, copper, and lead production from Wonder district, Churchill County, Nevada, 1907-37, in terms of recovered metal (cont'd.)
(Compiled by Charles White Merrill, Mineral Production and Economics Division, Bureau of Mines)

Year	Lode					
	Copper		Lead		Total value	Average recoverable value of ore per ton 1/
	Pounds	Value	Pounds	Value		
1907.....	-	-	-	-	$14,622	$109.94
1908.....	-	-	-	-	49,455	121.21
1909-10...	-	-	-	-	-	-
1911.....	-	-	-	-	142,290	14.52
1912.....	-	-	-	-	448,601	15.81
1913.....	-	-	-	-	619,379	14.79
1914.....	-	-	62	$2	706,585	14.10
1915.....	-	-	-	-	798,603	13.67
1916.....	4,564	$1,123	3,350	231	859,812	14.79
1917.....	-	-	-	-	828,432	14.85
1918.....	1,336	330	602	43	704,850	14.17
1919.....	-	-	-	-	639,589	15.75
1920.....	-	-	36	3	26,512	21.77
1921.....	-	-	-	-	36	18.00
1922.....	-	-	-	-	2,063	85.96
1923.....	-	-	-	-	-	-
1924.....	-	-	-	-	66	66.00
1925.....	-	-	-	-	-	-
1926.....	-	-	-	-	2,685	26.85
1927-30...	-	-	-	-	-	-
1931.....	-	-	-	-	8,948	21.51
1932.....	-	-	-	-	345	1.73
1933.....	-	-	-	-	-	-
1934.....	-	-	270	10	42,726	25.18
1935.....	-	-	-	-	12,025	51.61
1936.....	-	-	-	-	15,535	42.68
1937.....	-	-	-	-	29,605	41.99
Total	5,900	1,453	4,320	289	5,952,764	14.94

1/ Not to be confused with average assay value of ore.

The country rocks are a complex series of Tertiary eruptives - rhyolite, dacite, andesite, and basalt. The Wonder rhyolite is the principal ore-bearing formation. A number of veins occur, most of which contain small deposits of silver-gold ore, but the principal vein from which the major part of the production has been mined is the Nevada Wonder, whose outcrop extends 1-1/4 miles along the strike.

According to Burgess[19] the Nevada Wonder vein lies partly on the contact between rhyolite and the intrusive body of dacite, but toward the north the vein leaves the contact and lies entirely within the rhyolite. The strike is N. 25° W. and the dip is 75° NE. The widths of the oreshoots range from a few feet to a maximum of 30 feet, averaging between 5 and 6 feet. The values are silver and gold in a gangue of quartz, feldspar, and occasional small quantities of fluorite. The gangue is generally stained yellowish-brown with limonite; some of the ore is white. No water is present in the workings, and oxidization extends to the 1,300-foot elevation in the mine. The silver is in the form of argentite and halogen salts, and the gold is both native and combined with argentite. The silver haloids found are embolite, iodobromite, and iodyrite. The ratio of gold to silver by weight, according to production statistics, has been 1 to 94. Oxide of manganese occurs in small dendritic forms, while copper and lead occur only in traces.

Near the surface, where the walls of the vein were firm and stood well, the ore was mined by the shrinkage method. Below the 400 level the walls were less firm, and mining was done by the cut-and-fill system, waste for filling having been obtained from raises driven either into the hanging or foot wall.

19/ Burgess, J. A., the Halogen Salts at Wonder, Nev.: Econ. Geol., Vol. 12, 1917, pp. 589-593.